

FIG.1 X-ray diffractogram of the clay/SBR mixture : (a) CCS-110 Clay/SBR=25% ; (b) CCS-111 Clay/SBR=12.8% ; (c) CCS-112 Clay/SBR=6.4% ; (d) CCS-113 Clay/SBR=2.7% ; (e) CCS-114 Clay/SBR=1.7% ; (f) CCS-115 Clay/SBR=1.0% ; (g) CCS-116 Clay/SBR=0.7%

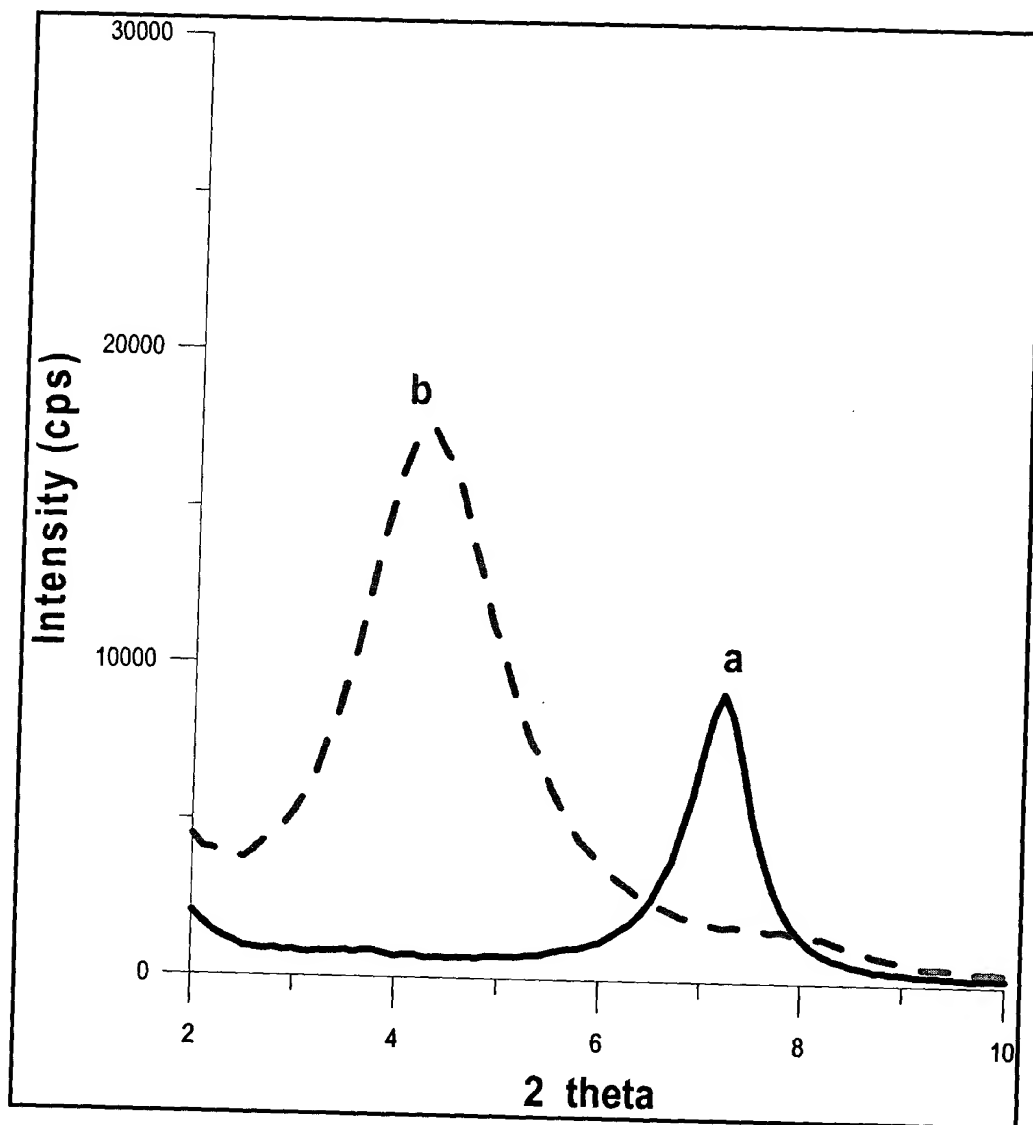


FIG. 2 X-ray diffractogram of pure clay, clay/polyelectrolyte:
 (a) pure clay (Kunipia F) ; (b) clay/polyelectrolyte
 composite (CCH-01)

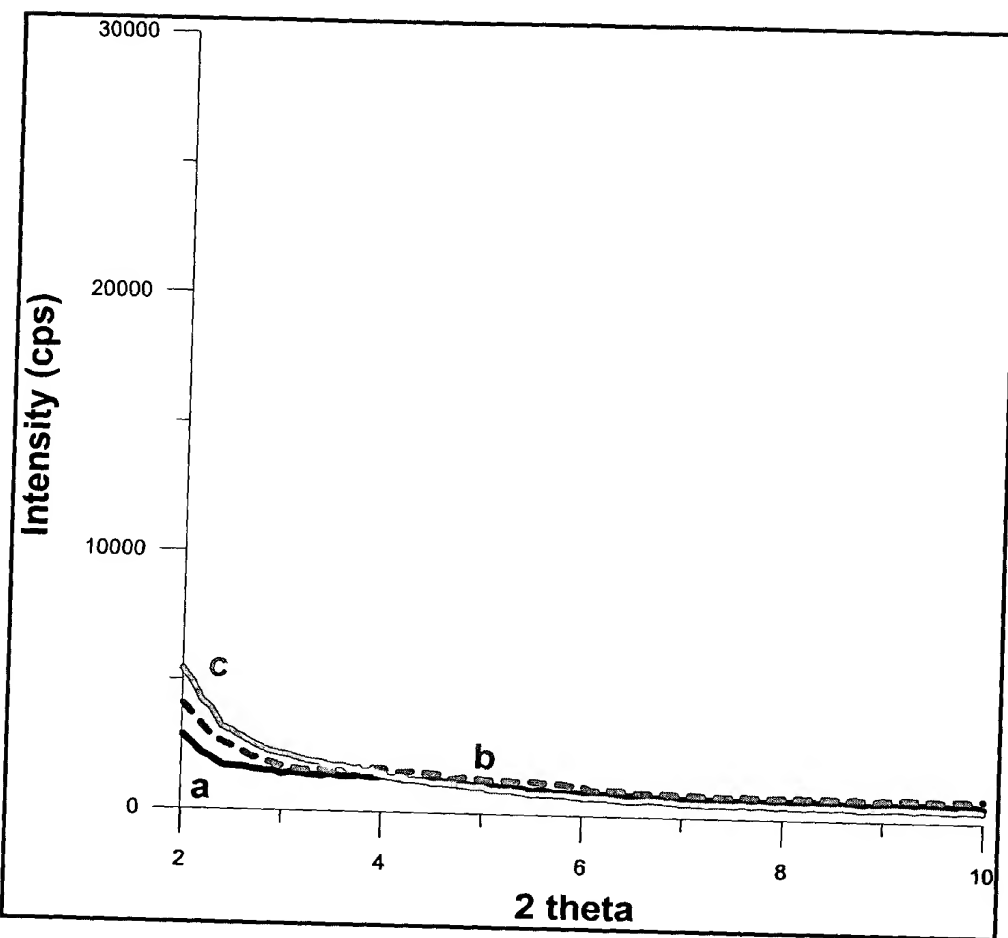


FIG. 3 X-ray diffractogram of the clay/polyelectrolyte/SBR nanocomposite (total electrical charge ratio of CPE/Clay is 5):
 (a) CCS-95 Clay/SBR=1.7% ; (b) CCS-94 Clay/SBR=2.4% ; (c) CCS-93 Clay/SBR=5.1%

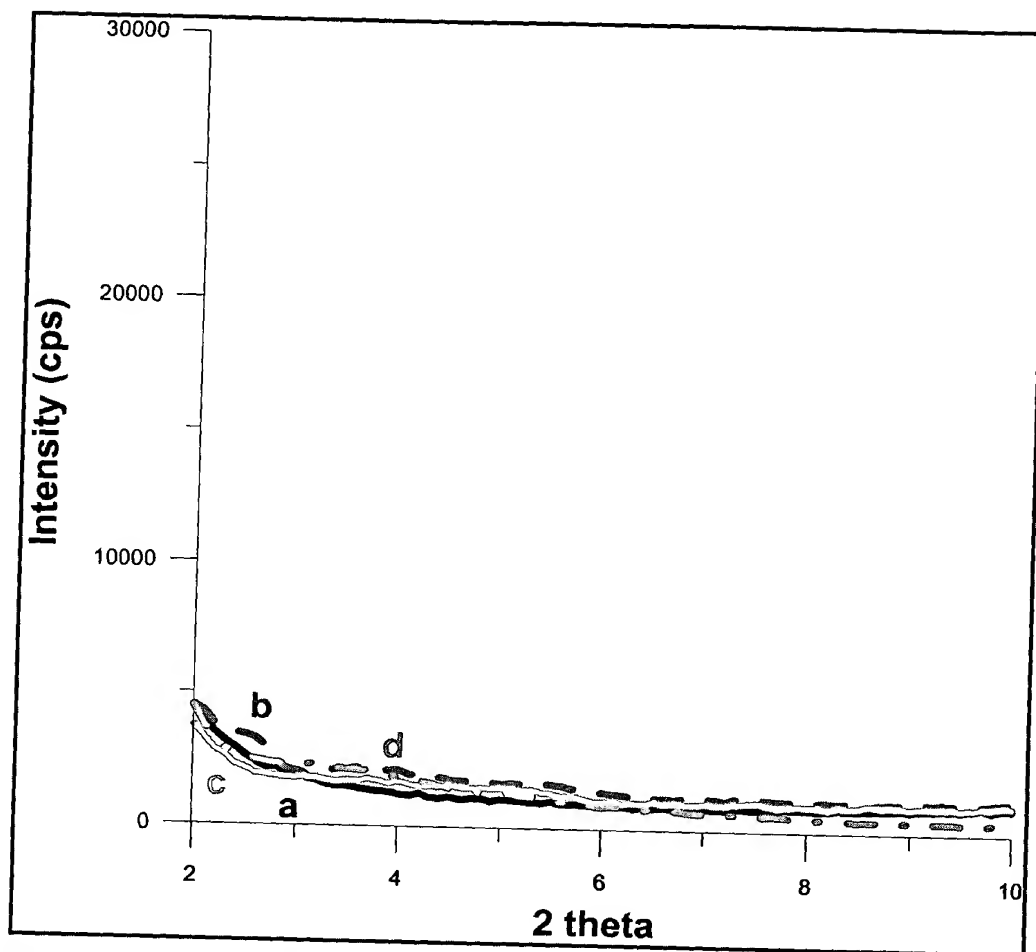


FIG. 4 X-ray diffractogram of the clay/polyelectrolyte/SBR nanocomposite (total electric charge ratio of CPE/Clay is 7):
 (a) CCS-106 Clay/SBR=1.0%; (b) CCS-105 Clay/SBR=1.6%; (c) CCS-104 Clay/SBR=2.3%; (d) CCS-103 Clay/SBR=4.8%

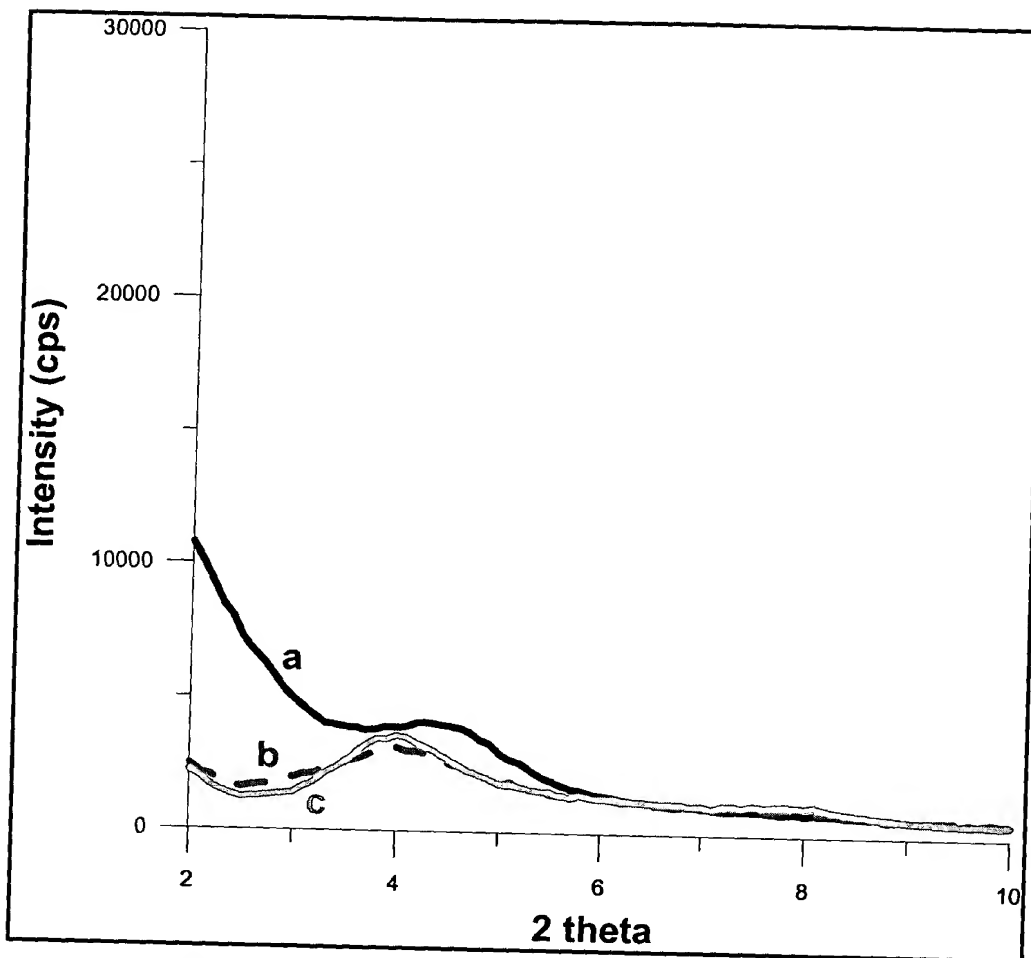


FIG. 5 X-ray diffractogram of the clay/polyelectrolyte/SBR nanocomposite (the total electric charge ratio of CPE/Clay is 5): (a) CCS-92 Clay/SBR=10.2%; (b) CCS-91 Clay/SBR=17.0%; (c) CCS-90 Clay/SBR=34.0%

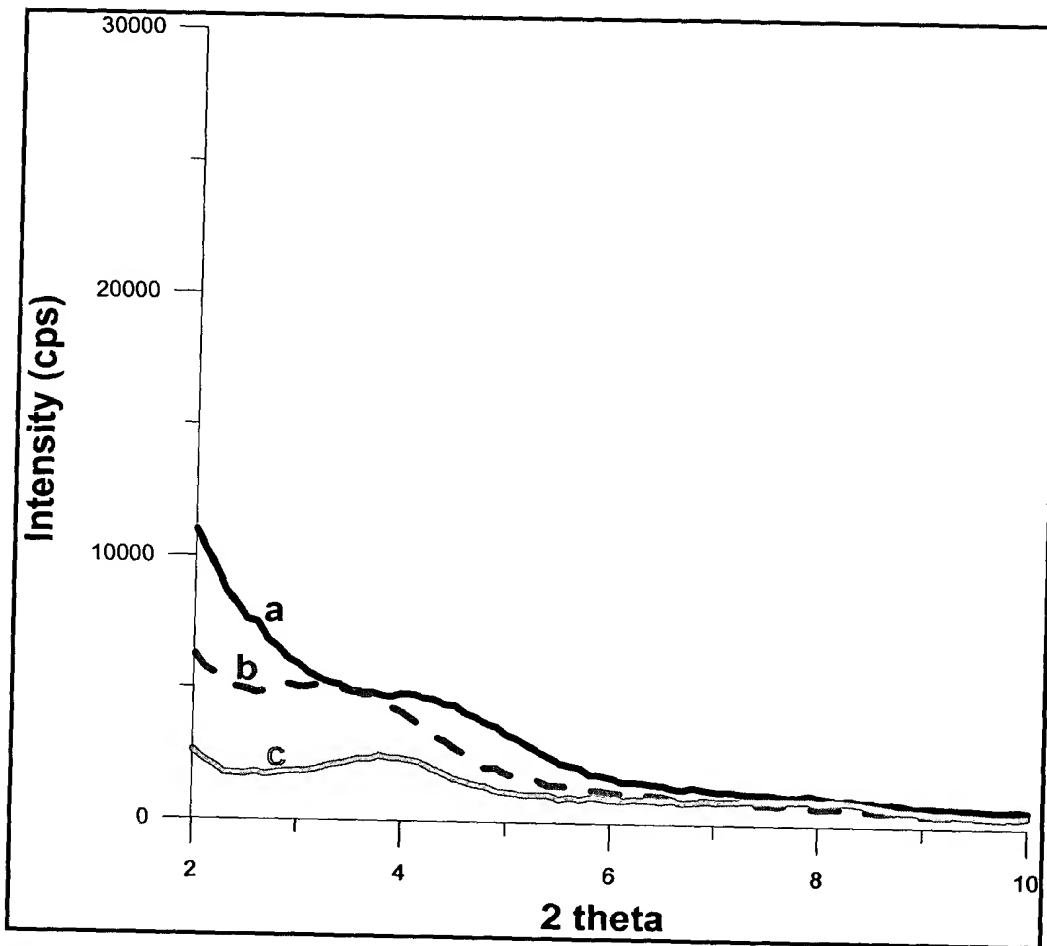


FIG. 6 X-ray diffractogram of the clay/polyelectrolyte/SBR nanocomposite (the total electric charge ratio is 7): (a) CCS-102 Clay/SBR=9.7% ; (b) CCS-101 Clay/SBR=16.2% ; (c) CCS-100 Clay/SBR=32.3%

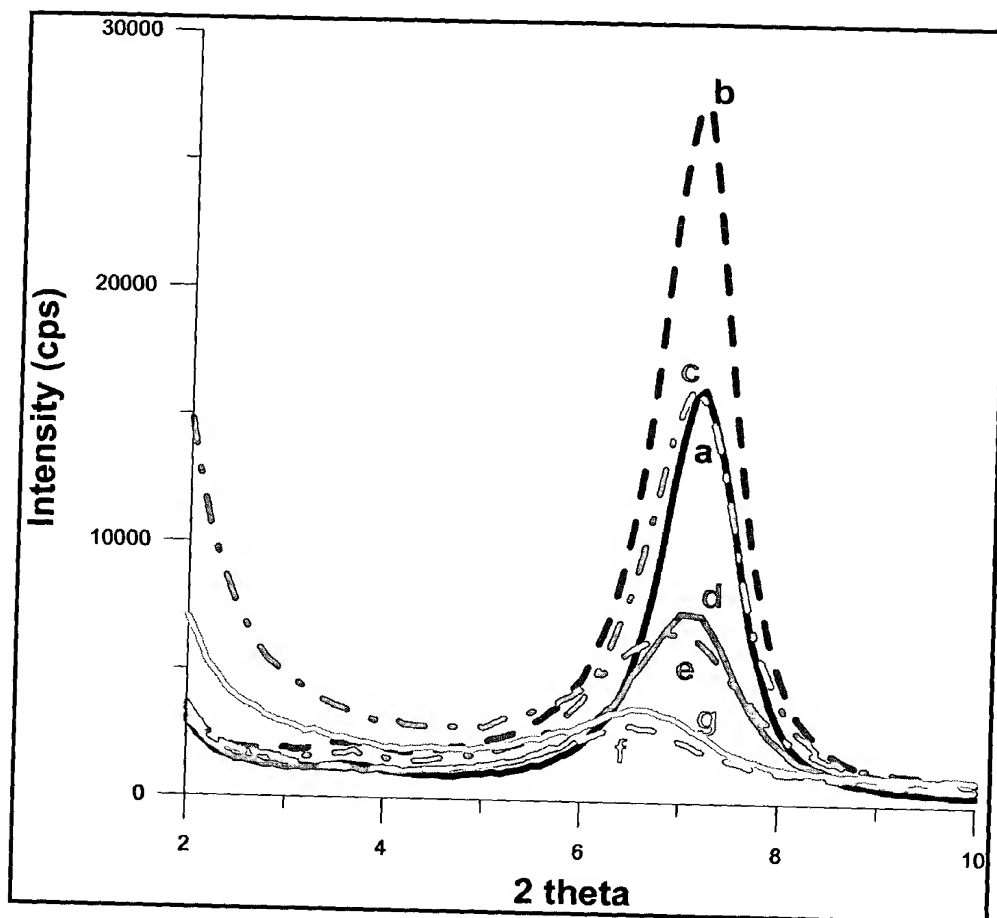


FIG. 7 X-ray diffractogram of the clay/PMMA mixture : (a) CCM-30 Clay/PMMA=23.1% ; (b) CCM-31 Clay/PMMA=11.5% ; (c) CCM-32 Clay/PMMA=5.8% ; (d) CCM-33 Clay/PMMA=2.5% ; (e) CCM-34 Clay/PMMA=1.5% ; (f) CCM-35 Clay/PMMA=0.9% ; (g) CCM-36 Clay/PMMA=0.6%

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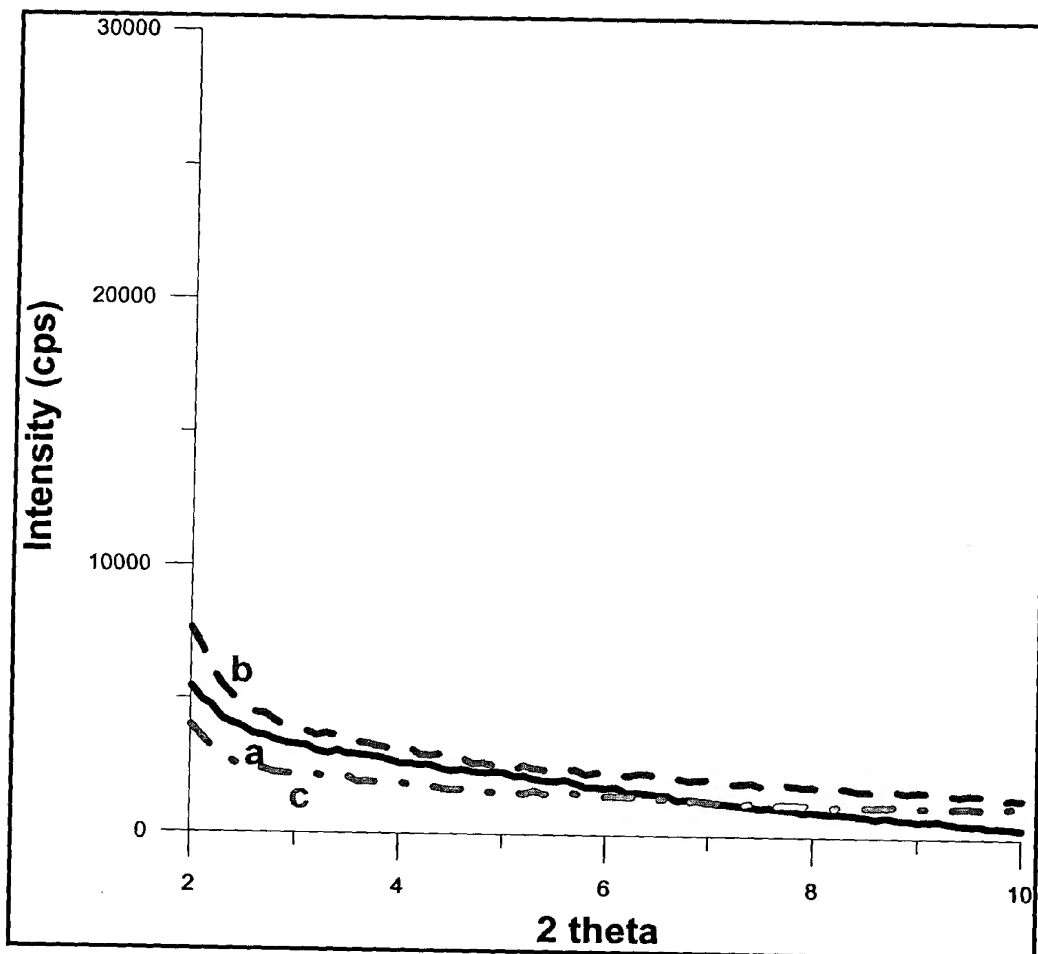


FIG. 8 X-ray diffractogram of the clay/polyelectrolyte/PMMA nanocomposite (the total electric charge ratio of CPE/Clay is 5): (a) CCM-26 Clay/PMMA=0.9%; (b) CCM-25 Clay/PMMA=1.5%; (c) CCM-24 Clay/PMMA=2.2%

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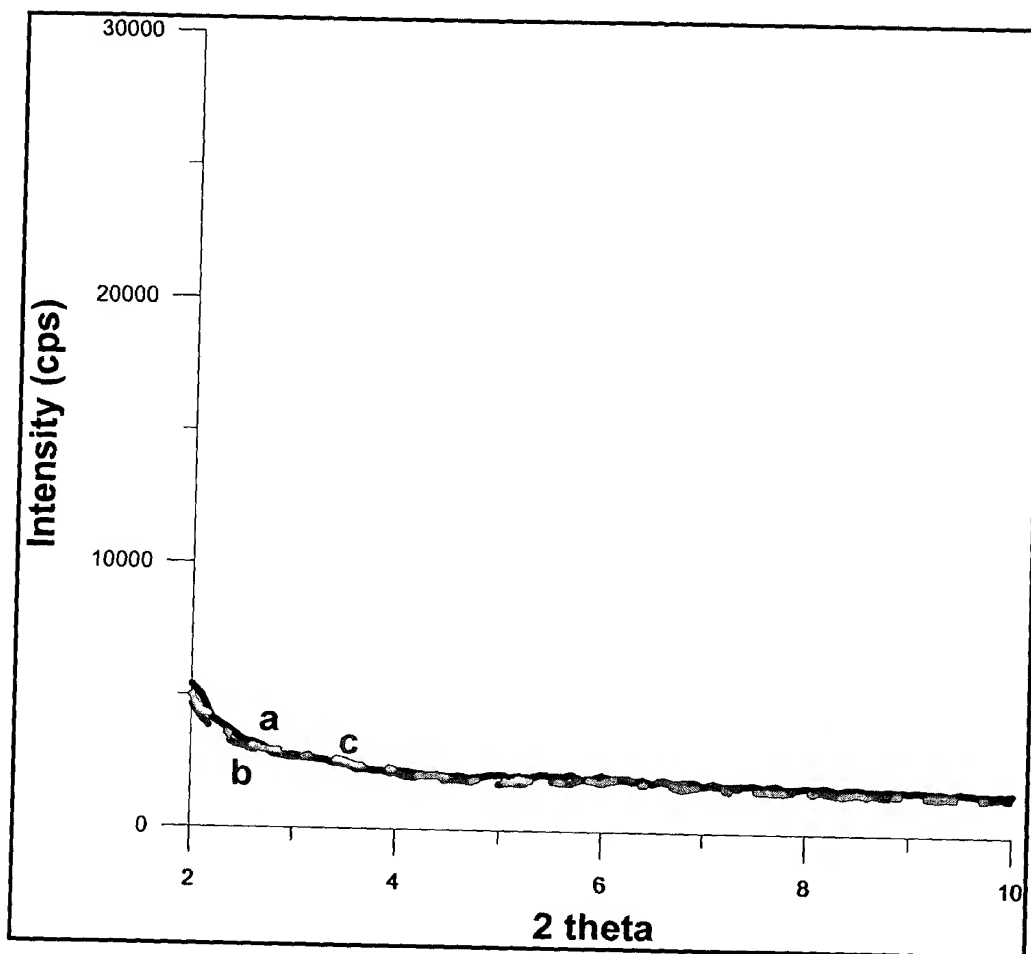


FIG. 9 X-ray diffractogram of the clay/polyelectrolyte/PMMA nanocomposite (the total electric charge ratio of CPE/Clay is 7): (a) CCM-46 Clay/PMMA=0.9%; (b) CCM-45 Clay/PMMA=1.5%; (c) CCM-44 Clay/PMMA=2.0%

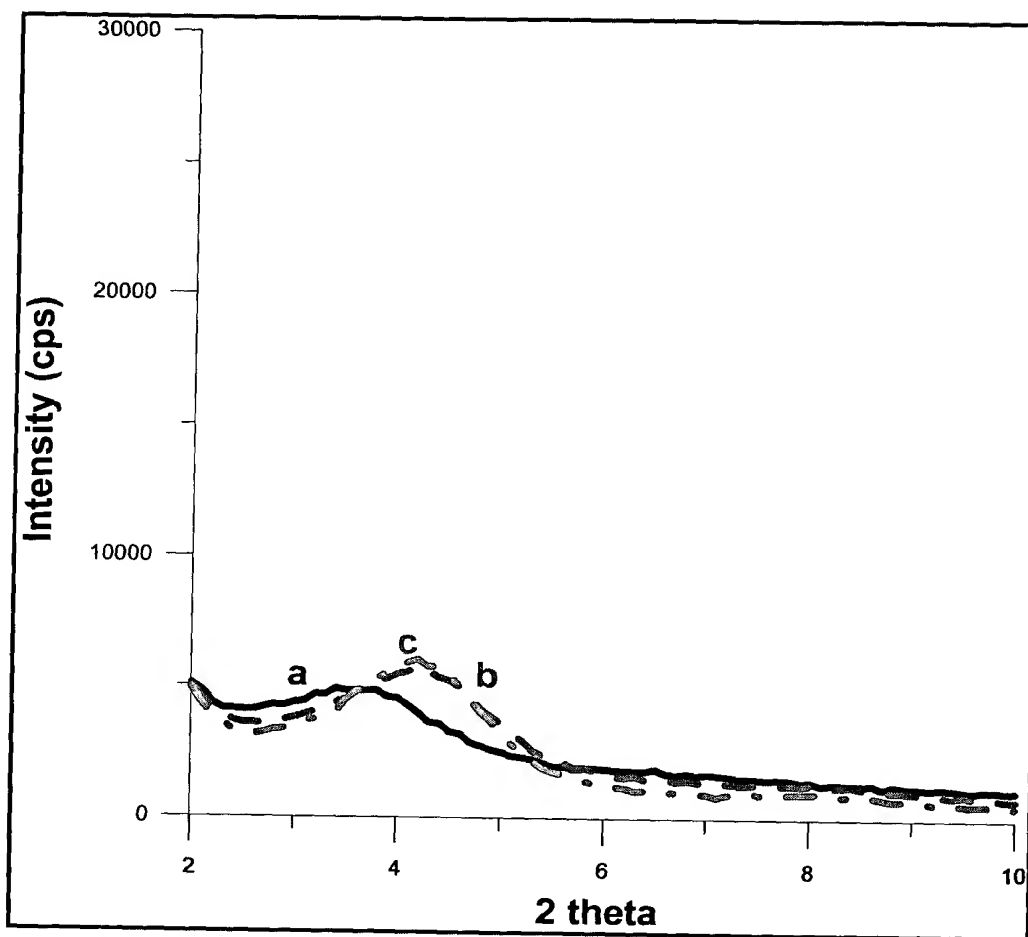


FIG. 10 X-ray diffractogram of the clay/polyelectrolyte/PMMA nanocomposite (the total electric charge ratio of CPE/Clay is 5): (a) CCM-22 Clay/PMMA=9.2%; (b) CCM-21 Clay/PMMA=15.4%; (c) CCM-20 Clay/PMMA=30.8%

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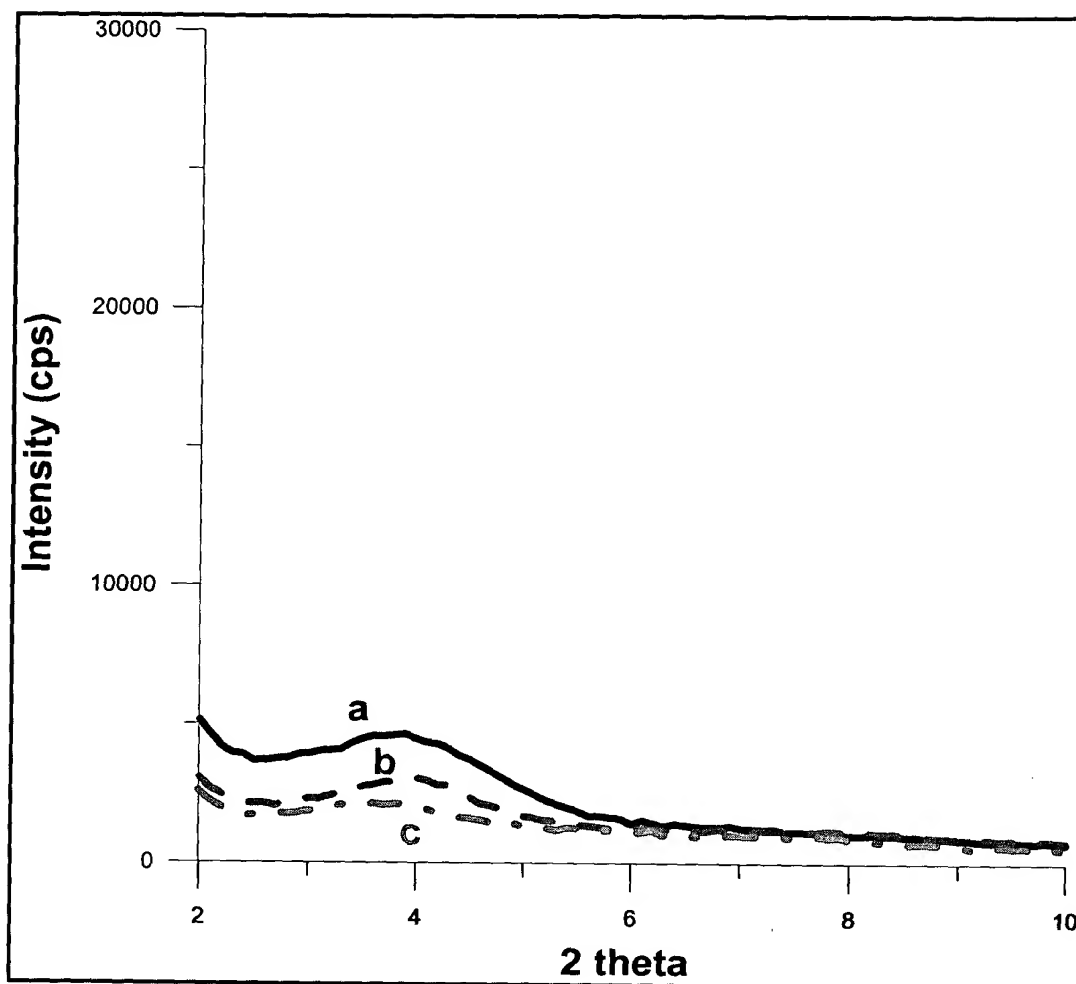


FIG. 11 X-ray diffractogram of the clay/polyelectrolyte/PMMA nanocomposite (the total electric charge of CPE/Clay is 7):
 (a) CCM-42 Clay/PMMA=8.8% ; (b) CCM-41 Clay/PMMA=14.6% ; (c)
 CCM-40 Clay/PMMA=29.2%